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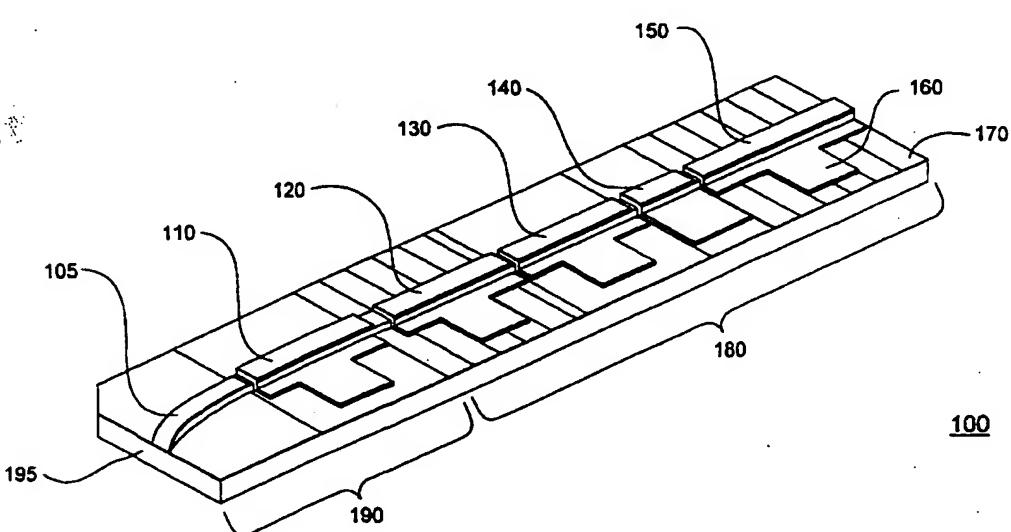
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[Continued on next page]

(54) Title: TUNABLE LASER SOURCE WITH INTEGRATED OPTICAL AMPLIFIER



W O 01/17076 A3



(57) Abstract: A laser assembly includes an epitaxial structure formed on a substrate. A separately controllable tunable laser resonator and external optical amplifier are formed in the epitaxial structure. At least a portion of the laser and amplifier share a common waveguide, which may have non-uniform optical or geometrical properties along the waveguide centerline or across a normal to the centerline.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01S5/0625 H01S5/026

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 715 268 A (LANG ROBERT J ET AL) 3 February 1998 (1998-02-03)	1,77,88,
A	column 5, line 60 -column 7, line 10; figure 3	99,131 44
X	US 5 088 105 A (STREIFER DECEASED WILLIAM ET AL) 11 February 1992 (1992-02-11)	1,6-9, 13,18, 77,99, 131
A	column 6, line 11 -column 7, line 8; figure 3	44,88
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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	LEE S -L ET AL: "SAMPLED GRATING DBR LASER ARRAYS WITH ADJUSTABLE 0.8/1.6-NM WAVELENGTH SPACING" IEEE PHOTONICS TECHNOLOGY LETTERS, IEEE INC. NEW YORK, US, vol. 11, no. 8, August 1999 (1999-08), pages 955-957, XP000860962 ISSN: 1041-1135 the whole document ---	1,44,77, 88,99, 131
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A	EP 0 620 475 A (CANON KK) 19 October 1994 (1994-10-19) figure 16 -----	44

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